UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,831	03/18/2004	John R. Frank	113744.124 (US2)	5913

23483 7590 07/10/2007

WILMER CUTLER PICKERING HALE AND DORR LLP
60 STATE STREET
BOSTON, MA 02109

EXAMINER
OMOSEWO, OLUBUSOLA

ART UNIT	PAPER NUMBER
2168	

NOTIFICATION DATE	DELIVERY MODE
07/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael.mathewson@wilmerhale.com
teresa.carvalho@wilmerhale.com
tina.dougal@wilmerhale.com

Office Action Summary	Application No.	Applicant(s)	
	10/803,831	FRANK, JOHN R.	
	Examiner	Art Unit	
	OLUBUSOLA ONI	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03/27/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to communications: Amendment filed on 03/27/2007

2. Claims 19 and 20 are new.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3 Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Toshikazu Fukushima (Pub .No 20020031269) (hereinafter "Toshikazu").

For claim 1, Toshikazu teaches " in a large corpus, identifying geo-textual correlations among readings of the toponyms within the plurality of toponyms [0079-0080]; and for each toponym selected from the plurality of toponyms, using the identified geo-textual correlations to generate a value for a confidence that the selected toponym refers to a corresponding geographic location ([0079-0081] wherein for the overall computation Osaka earns the highest point in the document).

For claim 2, Toshikazu teaches "using the confidences generated for the plurality of toponyms to rank documents according to their relevance to a search query"([0079-

0081] wherein ranking is been done by the number of appearance in the document and points are assigned accordingly)

For claim 3, Toshikazu teaches "selecting a set of initial values for the confidences for the plurality of toponyms, and wherein using the identified geo-textual correlations to generate values for confidences involves modifying the set of initial values based on the identified geo-textual correlations within the corpus"(See paragraph [0079-0082])

For claim 4, Toshikazu teaches "selecting the set of initial values for the confidences for the plurality of toponyms involves using a method of uniform priors"(See paragraph [0079])

For claim 5, Toshikazu teaches "identifying geo-textual correlations involves identifying within documents in the corpus toponyms that have associated geographic locations that are nearby to each other." (See paragraph [0079])

For claim 6, Toshikazu teaches "wherein identifying geo-textual correlations involves identifying spatial correlation among geographic references of toponyms that are in textual proximity"(See paragraph [0081] wherein Kinki-area and Kyoto are giving two points for appearing in a linked text)

For claim 7, Toshikazu teaches "wherein textual proximity means within the same

document"(See paragraph [0081])

For claim 8, Toshikazu teaches "wherein textual proximity means within the same document or any document closely linked with said same document"(See paragraph [0080-0081] wherein the occurrence of Kinki-area or Kyoto can be within the same document or liked document)

For claim 9, Toshikazu teaches "processing the corpus by a named entity tagger prior to identifying the geo-textual correlations"(See paragraph [0059]-[0063])

F or claim 10 Toshikazu teaches "method of generating information useful for ranking a document that includes a plurality of toponyms for which there is a corresponding plurality of (toponym,place) pairs, there being associated with each (toponym,place) pair of said plurality of (toponym,place) pairs a corresponding value for a confidence that the toponym of that (toponym,place) pair refers to the place of that (toponym,place) pair, said method comprising ([0079-0081]): for a selected (toponym,place) pair of the plurality of (toponym,place) pairs, determining if another toponym is present within the document that has an associated place that is geographically related to the place of the selected (toponym, place) pair (See paragraph [0005]-[0006]); and if a toponym is identified within the document that has an associated place that is geographically related to the place of the selected (toponym, place) pair, boosting the value of the confidence for the selected (toponym,place) pair"([0079-0081] wherein Osaka had the

most appearances therefore boosting the value of confidence and scores the most points).

For claim 11, Toshikazu teaches "determining if another toponym is present within the document that has an associated place that is geographically related to the place of that (toponym, place) pair involves identifying another toponym that has an associated geographic region that encompasses the place of the selected (toponym, place) pair" (See paragraph [0079]).

For claim 12, Toshikazu teaches "determining if another toponym is present within the document that has an associated place that is geographically related to the place of that (toponym, place) pair involves identifying another toponym that has an associated place that is geographically nearby the place of the selected (toponym, place) pair."(See paragraph [0079])

For claim 13, Toshikazu teaches "computing a geographical distance between the place associated with the identified toponym and the place of the selected (toponym,place) pair"(See paragraph [0094-0098])

For claim 14, Toshikazu teaches "wherein boosting involves calculating an adjustment value by computing an adjustment boosting function with the computed geographical distance as an input variable, said adjustment function being monotonically decreasing

for increasing values of the input variable"(See paragraph [0094-0098]).

For claim 15, Toshikazu teaches "wherein boosting involves deriving an initial boosting value from input including the calculated adjustment value"(See paragraph [0094-0096]).

For claim 16, Toshikazu teaches "wherein boosting involves applying a sigmoid function to the derived initial boosting value to compute a final boosting value and modifying the value of the confidence for the selected (toponym,place) pair by an amount determined by the final boosting value"(See paragraph [0098]).

For claim 17, Toshikazu teaches "performing steps (1) and (2) for each (toponym,place) pair among the plurality of (toponym,place) pairs to generate modified values for the confidences for the plurality of (toponym,place) pairs; and using the modified values to rank documents according to their relevance to a search query"(See paragraph [0079-0082]).

For claim 18, Toshikazu teaches "a method of evaluating relevance of a plurality of documents to a search query that includes both text and geographic place terms, said method comprising: for a selected document among the plurality of documents, computing a textual term relevance score corresponding to the text terms in the query (See paragraph [0079-0080] wherein Osaka is regarded as the co-occurring word

appearing in the most number of text); computing a geo-relevance score corresponding to the geographic terms in the query (See paragraph [0079] wherein Osaka makes the most appearance); and combining the computed textual term relevance score and the computed geo-relevance score to derive an overall relevance score for that document, wherein computing the geo-relevance for the selected document involves identifying a plurality of (toponym,place) pairs that is associated with the selected document (See paragraph [0079-0081] wherein for the overall computation Osaka earns the highest point in the document), and for each identified (toponym,place) pair, obtaining and using a value for a confidence that the toponym of the (toponym,place) pair refers to the place"(See paragraph [0079-0082]).

For claim 19, Toshikazu teaches "wherein obtaining the confidence that the toponym of the (toponym,place) pair refers to the place does not involve using information extrinsic to the plurality of documents" ([0079-0081])

For claim 20, Toshikazu teaches "wherein generating the value for a confidence that the selected toponym refers to a corresponding geographic location does not involve using information extrinsic to the corpus" ([0079-0081])

Response to Argument

4 Applicant's argument filed March 27, 2007 has been fully considered but they are not persuasive. The examiner respectfully traverses applicant's arguments.

As per claim 1, applicant argued that Toshikazu does not teach "identifying geo-textual correlations among readings of the toponyms within the plurality of toponyms", and "each toponym selected from the plurality of toponyms, using the identified geo-textual correlations to generate a value for a confidence that the selected toponym refers to a corresponding geographic location". On the contrary Toshikazu's teachings at paragraph 0079 include co-occurring words such as Tokyo, Kinki-Area and Kyoto, which appear in the text once respectively, and Osaka appears three times which indicates Osaka has the highest point in the document. However, as argued by applicant on page 1 of the remarks, "using the results of the first step to generate a confidence that ***a particular toponym*** refers to a corresponding geographical location". Therefore based on the number of appearances of Osaka, Chuo-ku is taken as Chuo-ku in Osaka due to the fact that Osaka makes the most appearances in the document and it could be concluded that it refers to a corresponding geographic location.

CONCLUSION

5 **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUBUSOLA ONI whose telephone number is 571-272-2738. The examiner can normally be reached on 10.00-6.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIM VO can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OLUBUSOLA ONI KBP
Examiner
Art Unit 2168

TIM VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100